CLAIMS:

1. A method for providing bi-state power operation of a HID lamp system comprising:

determining a power mode control selection;

determining a modulation to generate a driving signal based on the determined power mode control selection;

generating a driving signal based on the determined modulation; and

applying the generated driving signal to the HID lamp.

2. The method of claim 1 wherein the power mode control is selectable between a high power mode and a reduced power mode.

3. The method of claim 1 wherein the generated driving signal is a low-frequency square wave responsive to determining a high power mode control selection.

4. The method of claim 1 wherein the generated driving signal is a high-frequency square wave responsive to determining a low power mode control selection.

5. The method of claim 1 wherein determining a power mode selection includes determining a power mode transition point for switching between the high power mode and the low power mode.

6. The method of claim 5 wherein the power mode transition point is selectable.

7. The method of claim 5 wherein the power mode transition point is variable.

8. The method of claim 1 the driving signal is generated using an HBCF circuit.

9. The method of claim 8 wherein determining a modulation includes producing a first modulation signal and a second modulation signal for enabling the HCBF circuit to generate the driving signal.

10. The method of claim 9 wherein the first modulation signal and the second modulation signal comprise high-frequency square wave signals having the same frequency but opposite phase and wherein the signals are simultaneously applied to the HBCF to generate a high-frequency drive signal.

11. The method of claim 9 wherein the first modulation signal and the second modulation signal comprise high-frequency square wave signals alternated with zero signal wherein the first and second modulation signals are applied to the HBCF to generate a low frequency drive signal.

12. A computer readable medium having computer executable instructions for providing bi-state power operation of a HID lamp system comprising:

computer readable code for determining a power mode control selection; and

computer readable code for determining a modulation to generate a driving signal based on the determined power mode control selection.

13. The computer readable medium of claim 12 wherein the power mode control is selectable between a full output power HID lamp operation and a reduced output power HID lamp operation.

14. The computer readable medium of claim 12 wherein determining a power mode selection includes determining a power mode transition point for switching between the high power mode and the low power mode.

15. The computer readable medium of claim 14 wherein the power mode transition point is variable.

16. The computer readable medium of claim 12 wherein the modulation includes a low-frequency periodic signal when the HID lamp is selectably operated at full power and wherein the modulation includes a high-frequency periodic signal when the HID lamp is selectably operated at reduced power.

17. The computer readable medium of claim 12 wherein the low-frequency periodic signal comprises a square wave.

18. The computer readable medium of claim 12 wherein the high frequency periodic signal comprises a square wave.

19. A system to provide bi-state power operation of an HID lamp system comprising:

means for determining a power mode control selection wherein a high power mode and a low power mode are selectable; and

means for determining a modulation to generate a driving signal based on the determined power mode control selection.